## European contest - game

"Math Kangaroo" 2003
Grades 3 and 4

## Part A: Each correct answer is worth 3 points.

1) What is the sum of $0+1+2+3+4-3-2-1-0=$ ?
A) 0
B) 2
C) 4
D) 10
E) 16
2) The next number in the sequence is:

A) 100
B) 120
C) 140
D) 160
E) 180
3) Sophie draws kangaroos: a blue one, then a green, then a red, then a black, then a yellow, a blue, a green, a red, a black, and so on...What colour is the $17^{\text {th }}$ kangaroo?
A) blue
B) green
C) red
D) black
E) yellow
4) In one of the following pictures exactly three quarters of all objects are hearts. Which one is it?

A)

B)

C)

D)

E)
5) In the picture the distance $A C=10 \mathrm{~m}, B D=15 \mathrm{~m}, A D=22 \mathrm{~m}$. Find the distance $B C$.
A) 1 m ;
B) $2 m$;
C) $3 m$;
D) $4 m$;
E) 5 m

6) The table below shows the quantity of different types of flowers in the Botanical garden. Ted asked the gardener and found out, that there were 35 azaleas, 50 irises and 85 roses in the garden. What is the number of gerberas growing in

| azaleas | 0060 |  |
| :---: | :---: | :---: |
| irises | 0 | 0 |
| gerberas | 0060 |  | the garden?

A) 95
B) 100
C) 105
D) 110
E) 115

## Part B: Each correct answer is worth 4 points.

7) In the teachers' room there are 6 tables with 4 chairs each, 4 tables with 2 chairs each, and 3 tables with 6 chairs each. How many chairs are there altogether?
A) 40
B) 25
C) 50
D) 36
E) 44
8) Hedgehog Mark complained to his friends: "If I had picked up twice as many apples as I really did, I would have 24 apples more than I have now." How many apples did Mark pick up?

A) 48
B) 24
C) 42
D) 12
E) 36
9) Chris constructed the brick on the picture using red and blue cubes of the same size. The outside of the brick is completely red, but all cubes used inside are blue. How many blue cubes did Chris use?

A) 12
B) 24
C) 36
D) 40
E) 48
10) Jumpy the kangaroo has been training for the Animal Olympics. His longest jump during the training was 50 dm 50 cm and 50 mm long. He won the gold medal at the end of the Olympics with a jump that was 123 cm longer. How long was Jumpy's winning jump?

A) 6 m 78 cm
B) 5 m 73 cm
C) 5 m 55 cm
D) 11 m 28 cm
E) 7 m 23 cm
11) Betty likes calculating the sum of the digits that she sees on her digital clock (for instance, if the clock shows $21: 17$, then Betty gets 11). What is the biggest sum she can get if the clock is a 24 -hour clock?
A) 24
B) 36
C) 19
D) 25
E) 23
12) The picture on the right has been drawn on paper and cut out to make a house. Which of the houses did it become?


## Part C: Each correct answer is worth 5 points.

13) Annie fell asleep at $9: 30 \mathrm{pm}$ and woke up at $6: 45$ am the next morning. Her brother Martin had been sleeping 1 hour 50 min longer. How many hours and minutes had Martin been sleeping?
A) 30 h 5 min
B) 11 h 35 min
C) 11 h 5 min
D) 9 h 5 min
E) 8 h 35 min
14) If the length of the side of each little square is 1 cm , what is the area of the letter N ?
A) 14
B) 15
C) 16
C) 16
D) 17
E) 18

15) In a class there are 29 children. 12 children have a sister and 18 children have a brother. Tina, Bert, and Anne have no brother and no sister. How many children in that class have both a brother and a sister?
A) no one
B) 1
C) 3
D) 4
E) 6
16) The number of digits used to write all the page numbers in a book is 35 . How many pages is the book in total?
A) 12
B) 15
C) 22
D) 28
E) 35
17) A bar code is formed using 17 black and white bars (the first and last bars are black). The black bars are two types: wide and narrow. The number of white bars is 3 more than the number of wide black bars.
The number of narrow black bars is:
A) 1
B) 2
C) 3
D) 4
E) 5
18) Which two of these figures can one use to cover exactly the empty area?


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A) $1+3$
B) $2+4$
C) $2+3$
D) $1+4$
E) $3+4$

Contest Game<br>"Math Kangaroo"<br>March 29, 2003

## Answers

## Grade 3-4

| $\mathbf{1}$ | A B $\underline{\mathbf{C}}$ D E | $\mathbf{9}$ | $\underline{\mathbf{A}}$ B C D E | $\mathbf{1 7}$ | A B C $\underline{\mathbf{D}}$ E |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{2}$ | A B C D E | $\mathbf{1 0}$ | $\underline{\mathbf{A}}$ B C D E | $\mathbf{1 8}$ | A B C D E |
| $\mathbf{3}$ | A $\underline{\mathbf{B}}$ C D E | $\mathbf{1 1}$ | $\underline{\mathbf{A}}$ B C D E | $\mathbf{1 9}$ | A B C D E |
| $\mathbf{4}$ | A B C $\underline{\mathbf{D}}$ E | $\mathbf{1 2}$ | $\underline{\mathbf{A}}$ B C D E | $\mathbf{2 0}$ | A B C D E |
| $\mathbf{5}$ | A B $\underline{\mathbf{C}}$ D E | $\mathbf{1 3}$ | A B C D E | $\mathbf{2 1}$ | A B C D E |
| $\mathbf{6}$ | A B C $\underline{\mathbf{D}}$ E | $\mathbf{1 4}$ | A B C D $\underline{\mathbf{E}}$ | $\mathbf{2 2}$ | A B C D E |
| $\mathbf{7}$ | A B $\underline{\mathbf{C}}$ D E | $\mathbf{1 5}$ | A B C $\underline{\mathbf{D}}$ E | $\mathbf{2 3}$ | A B C D E |
| $\mathbf{8}$ | A $\underline{\mathbf{B}}$ C D E | $\mathbf{1 6}$ | A B $\underline{\mathbf{C}}$ D E | $\mathbf{2 4}$ | A B C D E |

